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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,900	12/18/2000	Heung-bae Lee	Q61824	2194

7590 01/06/2004

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EXAMINER

GHEBRETINSAE, TEMESGHEN

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 01/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,900

Applicant(s)

Lee

Examiner

Temesghen Ghebretinsae

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 28, 2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

1. It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over The admitted prior art fig.1 in view of Tomita (5,086,437).

Prior art fig.1 discloses a direct conversion demodulator in RF reception system comprising: a down mixer for mixing received RF signal; a filter for filtering high frequency components of the baseband signals; a differentiator for differentiating the baseband signals; a

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multiplier for cross multiplying the baseband signal; and an adder for adding the baseband signals. The prior art differs from the claimed subject matter in that it does not disclose an automatic gain control (AGC) and gain level detector. However, Tomita discloses a receiver comprising a down mixer for mixing received RF signal(13,14,15); a filter for filtering high frequency components of the baseband signals (17,18); a gain level detector (27,28) and automatic gain control (AGC)for controlling gains of the baseband signals (23,24).(see fig.1) Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the AGC and gain level detector of Tomita in the system of (Prior art fig.1) so that the output signal is maintained at a constant level and the data is detected correctly.

4. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior art fig.1 in view of Ward et al (4,736,390).

Prior art fig.1 discloses a direct conversion demodulator in RF reception system comprising: a down mixer for mixing received RF signal; a filter for filtering high frequency components of the baseband signals; a differentiator for differentiating the baseband signals; a multiplier for cross multiplying the baseband signal; and an adder for adding the baseband signals. The prior art differs from the claimed subject matter in that it does not disclose an automatic gain control (AGC) and gain level detector. However, Ward discloses a receiver comprising: a down mixer for mixing received RF signal (14,5,17); a filter for filtering high frequency components of the baseband signals (14,20); gain level detector (25); and a AGC for controlling gain of the baseband signals (21,22);. Thus, it would have been obvious to one of ordinary skill in the art at

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the time the invention was made to use the AGC and gain level detector of Ward in the system of (Prior art fig.1) so that the output signal is maintained at a constant level and the data is detected correctly.

Allowable Subject Matter

5. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 1 and 3 have been considered but are moot in view of the new ground(s) of rejection.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gehring et al (4,944,025) is cited to show direct conversion receiver comprising AGC detector.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T.Ghebretinsae whose telephone number is 703-405-4777. The examiner can normally be reached on Monday-Friday from 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour, can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-9000.

T.Ghebretinsae

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12/29/03

A handwritten signature in black ink, appearing to be 'T. Ghebretinsae', written over a vertical line.

TEMESGHEN GHEBRETINSAE
PRIMARY EXAMINER